Efficient Movement of Goods

Tangible Result Driver – Dave DeWitt,
Deputy Administrative Officer

Missouri's location in the nation's center makes it a major cross-roads in the movement of goods. Transportation infrastructure must be up to the task so that as the flow of freight becomes more efficient, businesses and communities share the economic benefits.

Efficient Movement of Goods

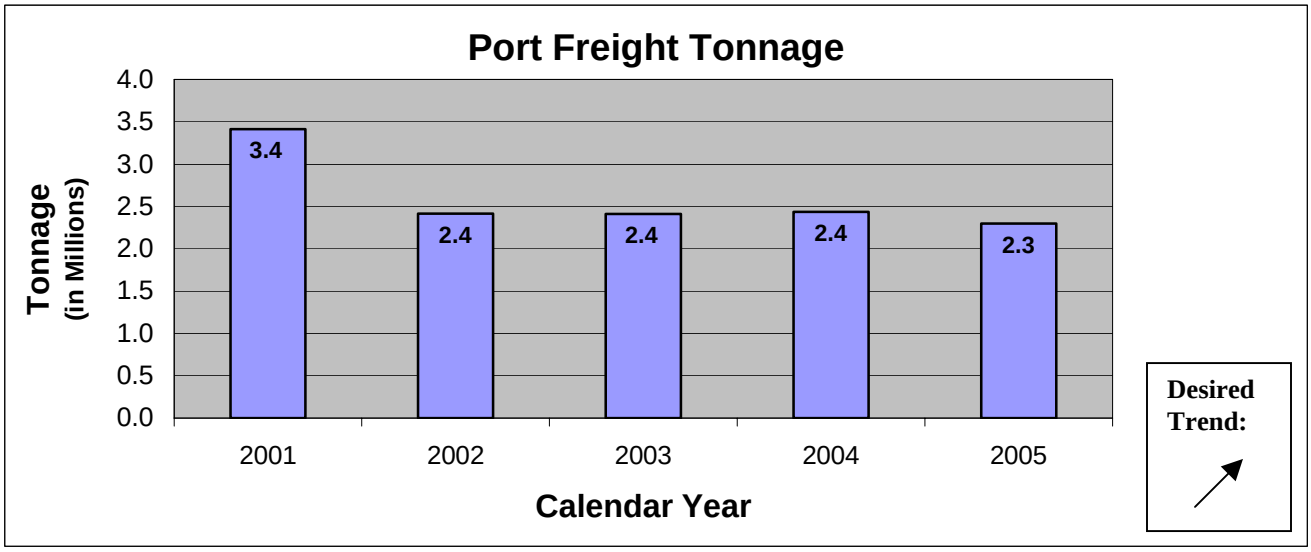
Freight tonnage by mode

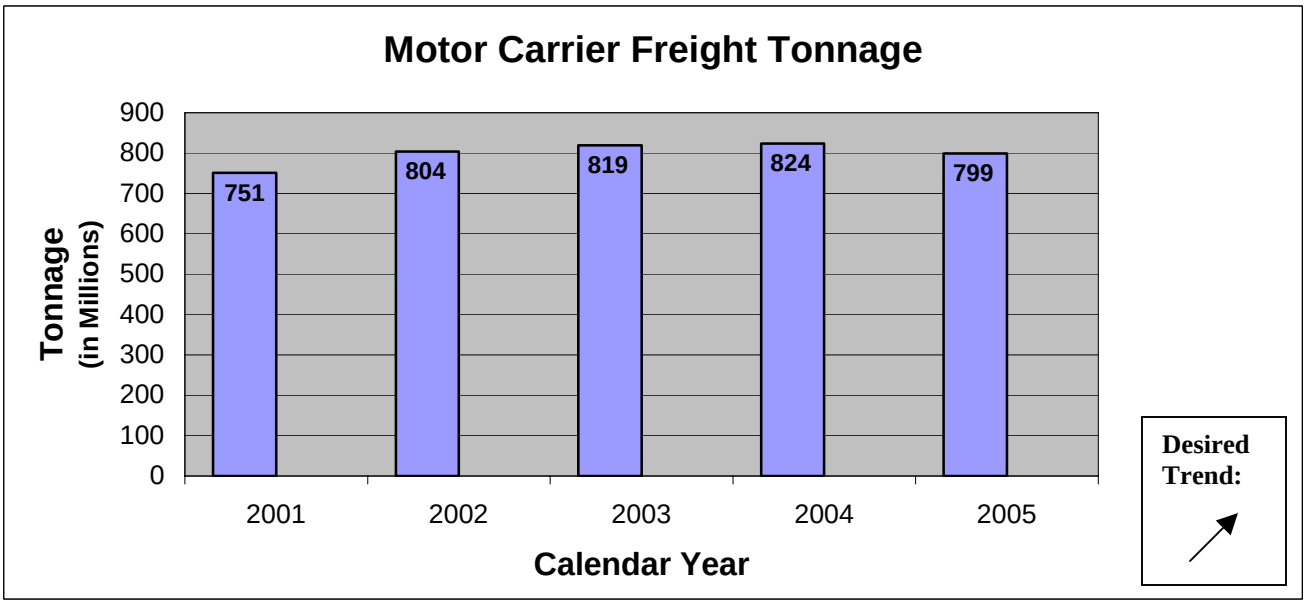
Result Driver: Dave DeWitt, Deputy Administrative Officer
Measurement Driver: Brian Weiler, Multimodal Operations Director

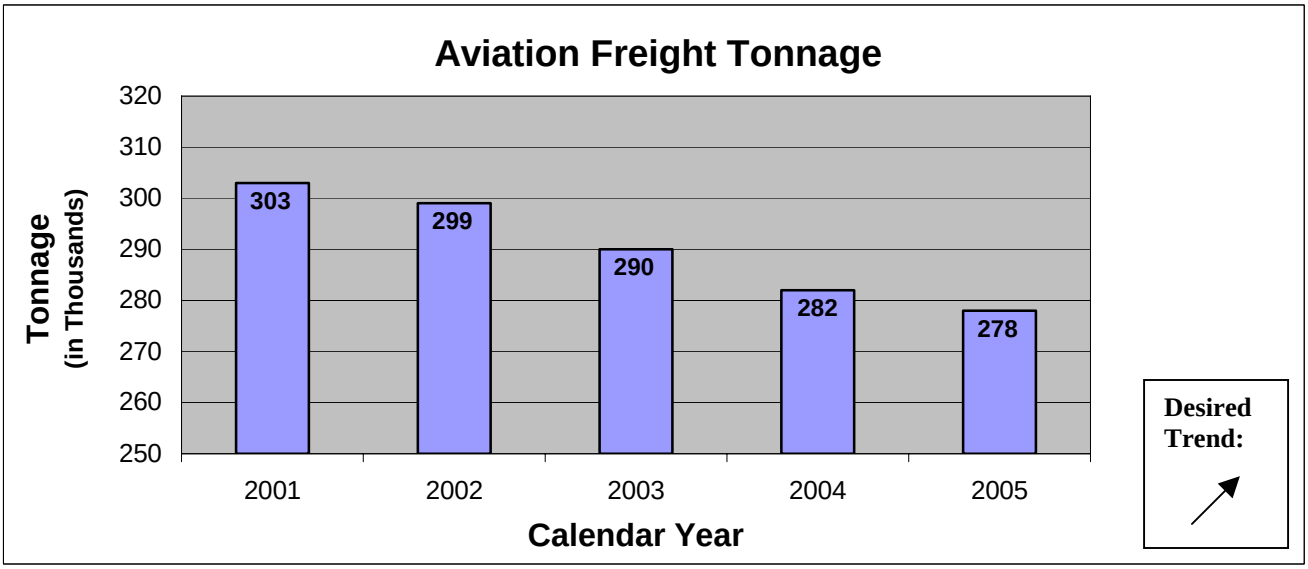
Purpose of the Measure:
This measure tracks trends and indicates diversification of freight movement on Missouri's transportation system.

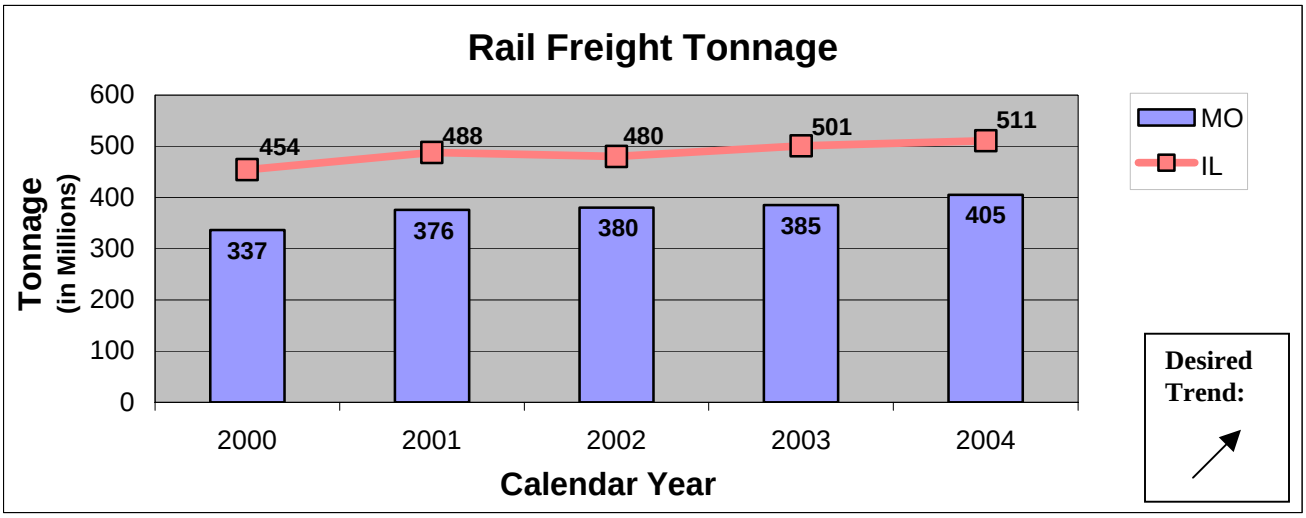
Measurement and Data Collection:
Port tonnage is reported to MoDOT from public ports. Air cargo data is collected via mail survey to commercial airports with known cargo activity. Rail tonnage is obtained from the Association of American Railroads. MoDOT calculates motor carrier freight movement using commercial vehicle miles traveled, trip length per shipment and average truck cargo weight.

Improvement Status:
Total freight tonnage for all modes exceeds 1.2 billion tons, which reflects positive economic growth and development for Missouri. Port tonnage has remained relatively steady since 2001 despite low flows on the Missouri River. The 2005 amounts show a slight decrease due primarily to navigation impacts on the Mississippi River from Hurricane Katrina. Long-term growth of river transportation is hampered by an inadequate lock and dam system on the Upper-Mississippi River above St. Louis. MoDOT supports a federal proposal from the Corps of Engineers to update and expand this system. Motor carrier freight tonnage had experienced steady growth since 2001, but it declined by 3 percent in 2005 mainly due to impacts from higher diesel fuel costs. MoDOT has implemented several process improvements and outreach efforts to streamline motor carrier registration and inspection services. Aviation tonnage continues to be impacted by a downturn in the aviation industry from 9-11 and the resulting financial impacts to airlines, which carry a significant portion of air cargo. Commercial airports fall under the jurisdiction of the Federal Aviation Administration; however, MoDOT's Aviation Advisory Committee helps identify ways to better support the commercial aviation industry. The recently opened new W1W runway at Lambert St. Louis adds significant system capacity, but it is too early to tell if this will increase aviation tonnage. The numbers for aviation freight differ slightly from the previous period. All inbound and outbound tonnage are reflected in the measure. Rail freight tonnage grew 5 percent from 2003 to 2004 and demand remains strong despite system capacity issues. Missouri does not currently invest public funding in private rail infrastructure; however, MoDOT has supported efforts to remove rail system bottlenecks, such as the Kansas City Flyover Project and adding a second bridge on the Union Pacific mainline over the Osage River.




Motor Carrier Freight Tonnage
Tonnage (in Millions)
900
800
700
600
500
400
300
200
100
0
751
804
819
824
799
2001
2002
2003
2004
2005
Calendar Year
Desired Trend:


Aviation Freight Tonnage
Tonnage (in Thousands)
320
310
300
290
280
270
260
250
303
299
290
282
278
2001
2002
2003
2004
2005
Calendar Year
Desired Trend:


Rail Freight Tonnage
Tonnage (in Millions)
600
500
400
300
200
100
0
454
488
480
501
511
337
376
380
385
405
2000
2001
2002
2003
2004
Calendar Year
MO
IL
Desired Trend:

Efficient Movement of Goods

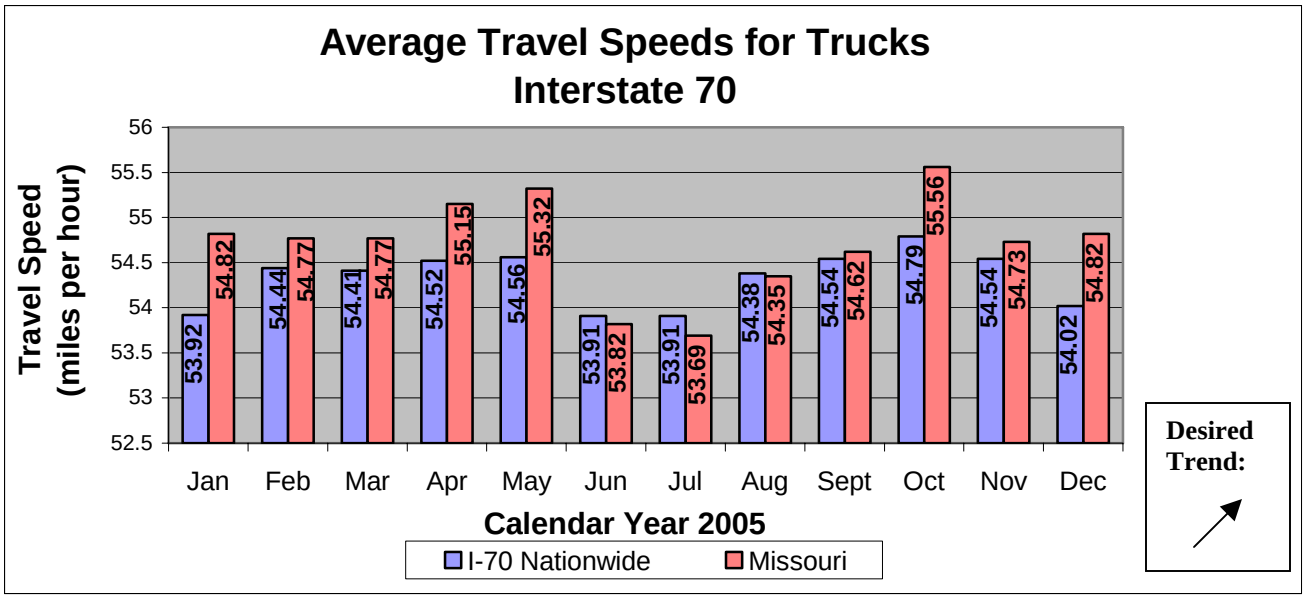
Average travel speeds for trucks on selected roadway sections

Result Driver: Dave DeWitt, Deputy Administrative Officer
Measurement Driver: Michelle Teel, Technical Support Engineer

Purpose of the Measure:
This measure tracks average truck travel speeds on selected roadway sections. MoDOT recognizes the efficient movement of trucks is critical to the economy. Timely, reliable goods movement allows businesses to reduce manufacturing and inventory costs and improve responsiveness to rapidly changing markets.

Measurement and Data Collection:
The Federal Highway Administration (FHWA) launched the Freight Performance Measure initiative to monitor truck travel speeds in freight-significant corridors, including Interstate 70. In 2002, the FHWA established a partnership with the American Transportation Research Institute (ATRI) to determine whether and how information from communication technologies used by the freight industry could provide data to support freight performance measures. ATRI worked with technology vendors and commercial carriers to demonstrate that, after removing all information except time and location data, communication technologies can be used to derive measures of travel speeds. This preliminary research data, including truck travel speeds, is available from FHWA on I-70 across the nation. This data allows MoDOT to measure Missouri's truck performance on I-70 compared to I-70 nationwide. The desired trend is an increase in average travel speeds, not to exceed the posted speed limit (the average speed limit on I-70 in Missouri is 67 mph). Additional Missouri routes may be added in the future, including Interstates 55, 57, and 35. MoDOT was recently selected as a case study state to further improve and enhance the FHWA Freight Performance Measurement initiative.

Improvement Status:
To help improve truck speeds, live traffic data for three Missouri metro areas is available on MoDOT's Web site at www.modot.org in the Services section under Traveler Services. Kansas City Scout provides traffic information for Kansas City, Gateway Guide provides traffic information for St. Louis, and Ozarks Traffic provides traffic information for Springfield. MoDOT's Web site also provides a work zone map. MoDOT is placing an increased emphasis on managing work zones and incidents, including the formation of I-70 and I-44 corridor teams that coordinate incident management and work zone management efforts. Due in part to an increase in the number of Missouri work zones last summer, travel speeds decreased slightly in June through August.



Efficient Movement of Goods

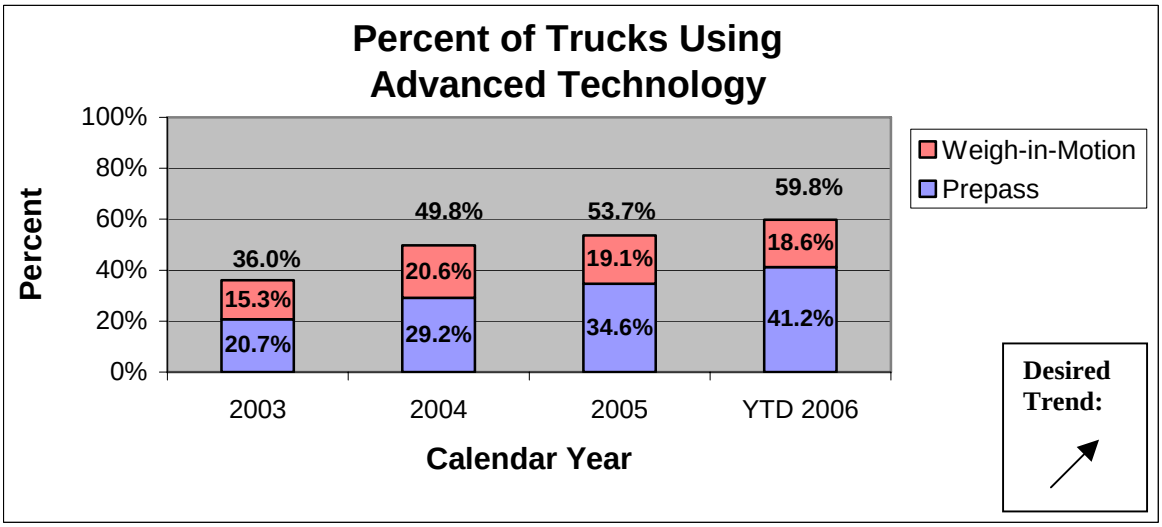
Percent of trucks using advanced technology at Missouri weigh stations

Result Driver: Dave DeWitt, Deputy Administrative Officer
Measurement Driver: Barbara Hague, Special Project Coordinator

Purpose of the Measure:
This measure indicates motor carriers' acceptance of tools designed to improve the flow of freight traffic on Missouri highways.

Measurement and Data Collection:
Data is collected by HELP, Inc.'s PrePass system computers which scan transponder-equipped vehicles as they approach 19 Missouri weigh stations. Pavement sensors check the vehicle's weight while computers review MoDOT's records to determine the carrier's compliance with safety, insurance and other state and federal regulations. Drivers are notified to stop or are allowed to continue without delay. Carriers that comply with state and federal regulations save time and money. The Missouri State Highway Patrol provides a quarterly measure of the number of trucks that use Missouri's weigh-in-motion scales located at Mayview and Foristell. These scales measure weight as trucks pass over them at 40 m.p.h. Using ramp scales rather than verifying weight on fixed scales that require a full stop saves both time and money.

Improvement Status:
The PrePass system continues to grow. The first quarter of 2006 registered the largest number of vehicles for any single quarter in Missouri since this program began, with 20.8% more trucks using the system than during the first quarter of 2005. The slower weigh-in-motion numbers have also increased in the same time period but at a much slower pace. Therefore, the percentages within the brackets are shifting from one category to the other. This quarter shows almost 60% of all weighed vehicles are using non-stop technology that keeps freight moving down Missouri highways.



Efficient Movement of Goods

Interstate motor carrier mileage

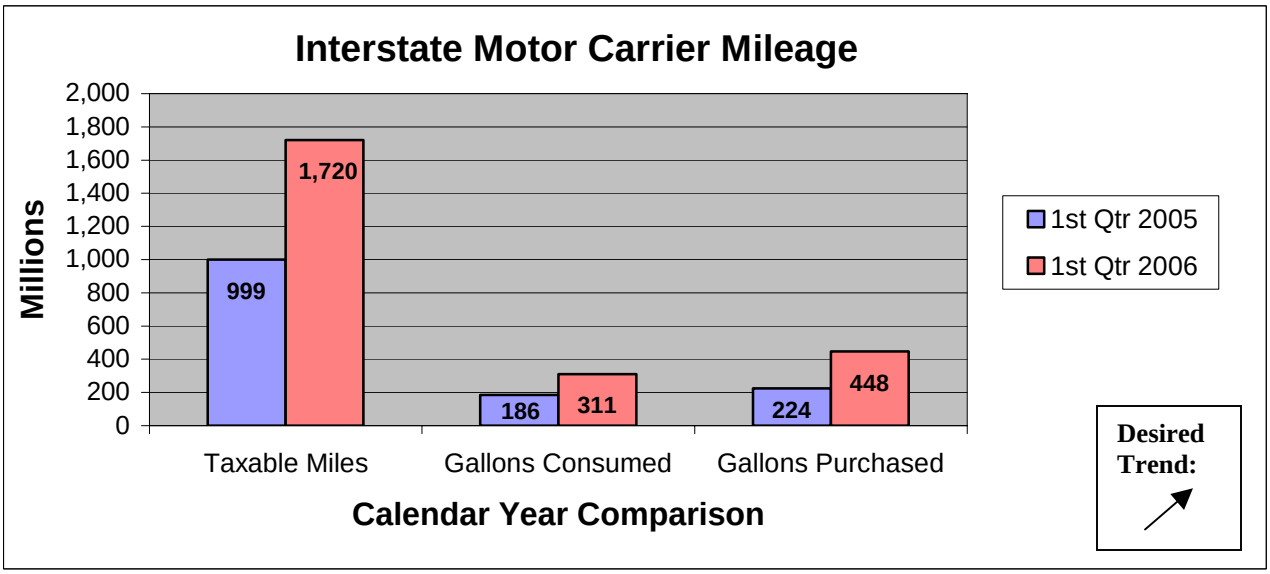
Result Driver: Dave DeWitt, Deputy Administrative Officer
Measurement Driver: Joy Prenger, Accounting Services Supervisor

Purpose of the Measure:
This measure reports the fluctuations of motor carrier freight movement in Missouri. MoDOT uses the information to help facilitate freight movement and to monitor quarterly fuel tax rate(s) and carriers' voluntary compliance with fuel tax requirements.

Measurement and Data Collection:
Data is collected quarterly. Total taxable miles traveled in Missouri by Missouri-based carriers and carriers based in IFTA (International Fuel Tax Agreement) member states and provinces are tracked using IFTA tax returns and member state and provinces' monthly transmittals. This information is used to reflect freight movement, support revenues and to track usage from the motor fuel tax refund appropriation.

Improvement Status:
During the first quarter of 2006, the reported diesel fuel price average for the Midwest region was $2.735 per gallon compared to the current average of $2.765. Last quarter diesel was $0.409 higher on average. Overall, the price of diesel is $0.587 higher than a year ago and approximately $1.16 higher than two years ago. According to the FHWA, if a motor carrier purchases 200 gallons per quarter, they pay an extra $117.40 more than last year.

This data shows that mileage increased in Missouri for the first quarter of 2006. A large number of audits were computed during this quarter to meet the April implementation schedule for Motor Carrier Services' web-based computer system. MCS mailed more than 6,000 letters to our customers to allow online filing and payment options for web-users. Since January 2005, twenty states increased their fuel tax rates, leaving Missouri the 46th lowest of 50 states.



Efficient Movement of Goods

Percent of satisfied motor carriers

Results Driver: Dave DeWitt, Deputy Administrative Officer
Measurement Driver: Mary Jo Pointer, Motor Carrier Manager

Purpose of the Measure:
This measure tracks MoDOT's progress toward the goal of expeditiously meeting the needs of the motor carrier industry and facilitating freight movement. MoDOT's Motor Carrier Services team uses the data to identify opportunities to improve customer satisfaction.

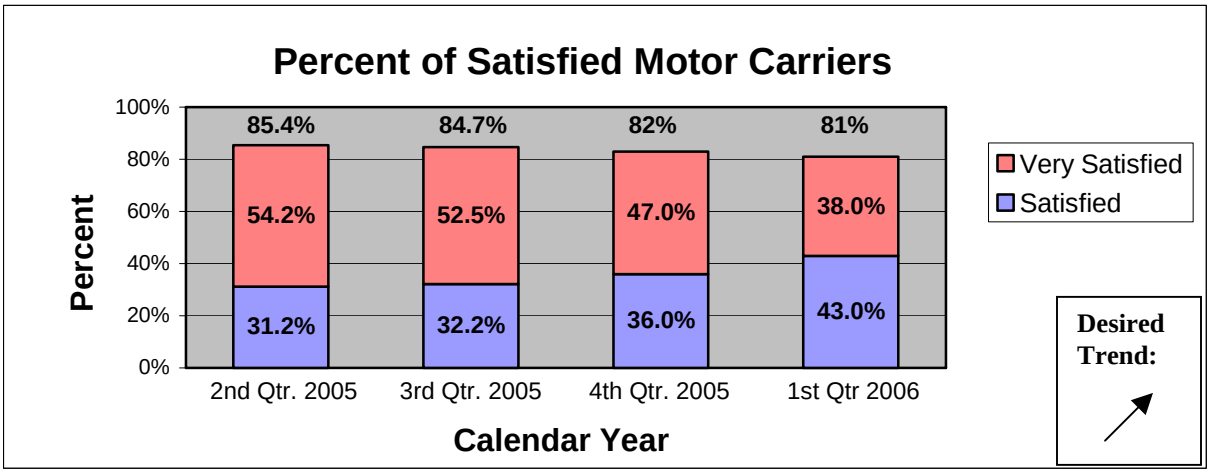
Measurement and Data Collection:
MCS personnel, working with the Missouri Transportation Institute, developed a survey to collect customer satisfaction data. A single survey addressed all four MCS program divisions, International Registration Plan/International Fuel Tax Agreement, Over-dimension/Overweight Permitting, Safety and Compliance and Operating Authority. Survey respondents identified the service(s) they use when doing business with MCS, then indicated their level of satisfaction with 12 customer service factors such as "timely response", "friendly", "respectful", and "outcome". They also gave an "overall satisfaction" score. Customers used a four-point scale ranging from 4=Very Satisfied to 1=Very Dissatisfied.

Improvement Status:
MCS customers reported satisfaction levels at 81 percent, with 38 percent "very satisfied". As expected, the satisfaction level has decreased as customers and staff adjust to a new online order and processing system. However, it is expected that the satisfaction level should increase as the system is fully implemented and customers gain more experience with it.

The areas of highest satisfaction center around interpersonal ratings which include the attributes "friendly service, respectful, agent cared about issue and helpful," and outcome ratings which include ratings of "correct action taken and service issue resolved." Satisfaction with Safety and Compliance increased and OD/OW customers reported significantly higher levels of satisfaction in this period, however, IRP and IFTA customers reported less satisfaction. This may be due to timing. The IRP and IFTA annual filing period ended December 31. Also, MCS implemented staggered IRP registration in March, another new development for customers.

To improve its service, MCS made improvements including:

- Implemented online registration for IRP customers so they may conduct business on their own schedule.
- Held hands-on training for all online programs.
- Began assigning agents to cross-program teams, reducing the number of people a customer must contact to complete their transactions.
- Implemented online IFTA program. Customers can file fuel tax information and pay online rather than through the U.S. Mail.


Percent of Satisfied Motor Carriers
100%
80%
60%
40%
20%
0%
Percent
85.4%
84.7%
82%
81%
54.2%
52.5%
47.0%
38.0%
31.2%
32.2%
36.0%
43.0%
2nd Qtr. 2005
3rd Qtr. 2005
4th Qtr. 2005
1st Qtr 2006
Calendar Year
Very Satisfied
Satisfied
Desired Trend:

Efficient Movement of Goods

Average wait time spent by customers obtaining over-dimension/over-weight permits

Result Driver: Dave DeWitt, Deputy Administrative Officer
Measurement Driver: Mary Jo Pointer, Motor Carrier Manager

Purpose of the Measure:
This measure tracks MoDOT Motor Carrier Services' success in minimizing the time it takes motor carriers to obtain permits that allow them to haul loads that are taller, wider, longer or heavier than those regularly permissible on Missouri highways.

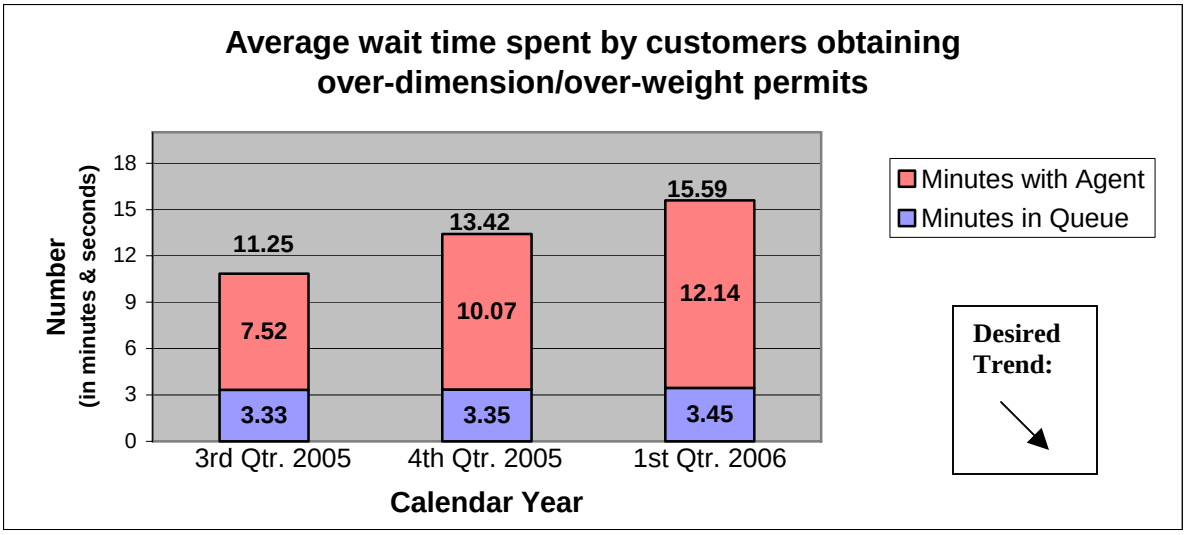
Measurement and Data Collection:
Using the WebView database to gather call center data, MCS calculates the average customer wait time on the phone (called "in queue") plus the average length of time speaking to a MCS agent to obtain a permit. In the future, MCS will also collect wait time data from both telephone requests and the Internet-based permit ordering system. Missouri uses the State of Kansas as a benchmark for this measure. The Kansas Department of Revenue reports that in the first quarter of 2006, OD/OW permit requests taken by Kan., telephone agents were processed within an average of 10 minutes.

Improvement Status:
According to monthly reports drawn from MCS's WebView database, during the first quarter of 2006, MCS answered 5,296 calls from OD/OW customers. There was a slight increase in the average wait time to 3 minutes, 45 seconds. The average time the caller spent with the agent to complete the transaction was 12 minutes, 14 seconds, resulting in an average of 15 minutes, 59 seconds to obtain an OD/OW permit.

Though the number of calls decreased 45 percent, average time customers spent speaking with an MCS agent increased by 21 percent. This, paired with the fact that nearly 80 percent of permit requests are placed online seems to indicate that customers with complex requests or questions are more likely to call MCS and customers with simple or routine applications use the Web-based system.

To improve OD/OW permit turnaround time, MCS:

- Encourages callers to apply for permits through the Web site. In March 2006, 80 percent of all single trip permit requests were made through the Web site.
- Continued to adjust staff hours to ensure all fully complete OD/OW permit requests received by 4:00 p.m. are processed and returned to the customer the same day.
- Provided a hands-on Web system training opportunity to 40 carriers. At customers' request, MCS also provides one-on-one training in the office.


Average wait time spent by customers obtaining over-dimension/over-weight permits
Number (in minutes & seconds)
0
3
6
9
12
15
18
11.25
7.52
3.33
13.42
10.07
3.35
15.59
12.14
3.45
3rd Qtr. 2005
4th Qtr. 2005
1st Qtr. 2006
Calendar Year
Minutes with Agent
Minutes in Queue
Desired Trend: